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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,544

10/19/2005

Teruo Tamada

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EXAMINER

LYJAK, LORI LYNN

ART UNIT

PAPER NUMBER

3612

MAIL DATE

DELIVERY MODE

06/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/553,544

Applicant(s)

TAMADA ET AL.

Examiner

Lori L. Lyjak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 23-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Tamada et al. 6,406,079.

Regarding claim 23, Tamada et al. '079 discloses a system (1) for absorbing an impact to a motor vehicle comprising: a bumper beam (column 4, lines 29-31); a bumper fascia (2); and a hollow impact absorbing member (6) interposed between said bumper beam and said bumper fascia comprising: a first wall disposed against said bumper beam; a second wall disposed against said bumper fascia, said first wall is spaced from said second wall to define a hollow space; said hollow space is further defined by a peripheral wall extending from peripheral edges of said first and second wall; a first plurality of concave ribs (10b) extending from said first wall into said hollow space towards said second wall and is proximal to said second wall whereby said first plurality of concave ribs occupies a portion of said hollow space; a second plurality of concave ribs (10a) extending from said second wall into said hollow space towards said first wall and is proximal to said first wall whereby said second plurality of concave ribs occupies a portion of said hollow space; and a weld surface supported by said first plurality of concave ribs in one direction and supported by said second plurality of concave ribs in another direction.

Regarding claim 24, Tamada et al. '079 discloses the hollow impact absorbing member of claim 23 further comprising a first plate-like rib extending into said hollow space from said first wall towards said second wall; a second plate-like rib extending into said hollow space from said second wall towards said first wall; and said first and second plate-like ribs are integrally welded to each other whereby said hollow space is partitioned.

Regarding claim 25, Tamada et al. '079 discloses the hollow impact absorbing member of claim 24, wherein said first and second plate-like rib are terminated with at least one concave rib.

Regarding claim 26, Tamada et al. '079 discloses the hollow impact absorbing member of claim 25 further comprising a first connection rib interposed between a pair of said first concave ribs.

Regarding claim 27, Tamada et al. '079 discloses the hollow impact absorbing member of claim 26 further comprising a second connection rib interposed between a pair of said second concave ribs.

Regarding claim 28, Tamada et al. '079 discloses the hollow impact absorbing member of claim 26 wherein said first connection rib forms a protrusion in said hollow space having a depth between 3.0 and 8.0 mm.

Regarding claim 29, Tamada et al. '079 discloses the hollow impact absorbing member of claim 28, wherein said first connection rib has a cross section selected from a group of shapes consisting of: a "C", a "V" and a plate.

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Regarding claim 30, Tamada et al. '079 discloses the hollow impact absorbing member of claim 26, wherein said first concave rib and first connection rib are arranged on a first virtual straight line.

Regarding claim 31, Tamada et al. '079 discloses the hollow impact absorbing member of claim 30, wherein said first virtual straight line has an angle within a range between 30 degrees and 60 degrees with respect to a horizontal line.

Regarding claim 32, Tamada et al. '079 discloses the hollow impact absorbing member of claim 27, wherein said second concave and second connection rib are arranged on a second virtual straight line

Regarding claim 33, Tamada et al. '079 discloses the hollow impact absorbing member in claim 23, further comprises a first height from said first wall to said weld surface, wherein said first height is between 15.0 and 35.0 mm; a second height from the said second wall to said weld surface, wherein said height second height is between 15.0 and 35.0 mm; and a third height from said first wall to said second wall, wherein said third height is between 30.0 and 70.0 mm.

Regarding claim 34, Tamada et al. '079 discloses the hollow impact absorbing member of claim 23, wherein said concave rib forms a frustum of a cone having a major diameter between 15.0 and 30.0 mm and a minor diameter between 5.0 and 15.0 mm, whereby said minor diameter of said concave rib is positioned in said hollow space.

Regarding claim 35, Tamada et al. '079 discloses a system for absorbing an impact to a motor vehicle comprising: a bumper beam; a bumper fascia; and a hollow impact absorbing member interposed between said bumper beam and said bumper fascia comprising: a first wall abutting said bumper beam; a second wall abutting said bumper fascia, said first wall is spaced

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from said second wall to define a hollow space; said hollow space is further defined by a peripheral wall extending from peripheral edges of said first and second wall; a separating structure spaced between said first wall and said second wall, whereby said hollow space defined by said first and second wall resists deformation when an impact energy is applied; and a supporting structure abutting at least two of said separating structure, whereby said supporting structure limits deformation of said separating structure when an impact energy is applied.

Regarding claim 36, Tamada et al. '079 discloses the hollow impact absorbing member of claim 35, wherein said supporting structure comprises a first fused portion of said first wall extending into said hollow space towards said second wall and a second fused portion of said second wall extending into said hollow space towards said first wall.

Regarding claim 37, Tamada et al. '079 discloses the hollow impact absorbing member of claim 35, wherein said supporting structure comprises a first folded portion of said first wall extending into said hollow space toward said second wall and a second folded portion of said second wall extending into said hollow space toward said first wall.

Regarding claim 38, Tamada et al. '079 discloses the hollow impact absorbing member of claim 35 further comprising a reinforcing core material deposited within said supporting structure.

Regarding claim 39, Tamada et al. '079 discloses the hollow impact absorbing member of claim 38, wherein said reinforcing core material is plastic.

Regarding claim 40, Tamada et al. '079 discloses the hollow impact absorbing member of claim 38, wherein said reinforcing core material is metal.

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Regarding claim 41, Tamada et al. '079 discloses a method for absorbing an impact to a motor vehicle comprising: interposing a hollow impact absorbing member between a bumper beam and a bumper fascia; separating a first wall of said hollow impact absorbing member from a second wall of said hollow impact absorbing member at a distance with a plurality of concave ribs; stabilizing a portion of said plurality of concave ribs with a plurality of plate-like ribs;

Regarding claim 42, Tamada et al. '079 discloses the method of claim 41 further comprising depositing a reinforcement material within said plurality of plate-like ribs.

Regarding claim 43, Tamada et al. '079 discloses the method of claim 41 further comprising interspersing a plurality of connection ribs between said plurality of concave ribs and arranging said plurality of connection ribs and said plurality of concave ribs on plurality of virtual lines orientated 30 to 60 degrees from horizontal.

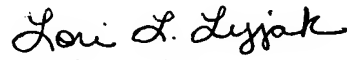
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lori L. Lyjak whose telephone number is 571-272-6658.

The examiner can normally be reached on Monday-Friday 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Dayoan can be reached on 571-272-6659. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Lori L. Lyjak
Primary Examiner
Art Unit 3612

III

June 1, 2007